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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,091	10/23/2001	Naoya Hasegawa	9281-4223	6620

7590 01/20/2004

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EXAMINER

MILLER, BRIAN E

ART UNIT	PAPER NUMBER
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2652

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DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,091

Applicant(s)

HASEGAWA, NAOYA

Examiner

Brian E. Miller

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 28-63 and 71 is/are pending in the application.
- 4a) Of the above claim(s) 7, 14, 21 and 28-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8-10, 13, 15-20, 71 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 11 and 12 is/are objected to.
- 8) ☒ Claim(s) 1-21, 28-63 and 71 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

Art Unit: 2652

Claims 1-21 & 28-63⁷¹_A are now pending.

Election/Restrictions

1. Applicant's election without traverse of species I, i.e., claims 1-6, 8-13, 15-20, 71, in Paper No. 6 is acknowledged.
2. Claims 7, 14, 21, 28-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not readily apparent whether claim 15 is an independent claim or dependent upon claim 8, however, in any case, the metes and bounds of the claim(s) cannot be readily ascertained. A slider is not necessarily a part of a thin film head as recited in claim 1. Applicant

Art Unit: 2652

should amend claim 15 to include all of the limitations of claim 8 and any other claims it depends from to avoid this confusion.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 6, 8-10, 13, 15-17, 20, 71 are rejected under 35 U.S.C. 102(e) as being anticipated by Aoki et al (US 6,587,315). (As per claims 1 & 71) Aoki et al discloses a spin-valve thin-film magnetic read head (claim 8), as shown for example in FIG. 35, including: a laminate comprising at least a substrate 319, a nonmagnetic conductive layer 332, pinned magnetic layer 331, antiferromagnetic layer 330 disposed appropriately with respect to the free layer 333 in the thickness direction (re claims 6, 13); a pair of hard magnetic bias layers 317 on either side of the free magnetic layer in the track width direction; a pair of insulating layers 321 extending over the hard bias layers and both ends of the laminate in the track width direction; a pair of lead layers 318 extending on the pair of insulating layers; wherein the pair of lead layers have overlay sections T3 which extend towards the center of the laminate and are in direct contact with parts of the laminate; (as per claims 2, 9, 16) the width of the overlay is within the range of 0.01um to 0.05um (see at least FIG. 32 and col. 18, lines 37-41); (as per claims 3, 10 & 17) the insulating layers 321 are formed of an oxide including tantalum oxide (see also col. 63,

Art Unit: 2652

lines 40-48); (as per claim 15) the described head would be utilized on a slider, i.e., ABS (see col. 1, line 20).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Conclusion

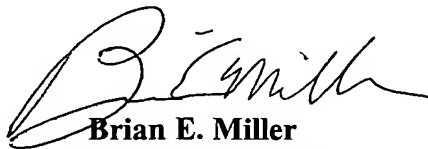
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure including US Patents to Hosomi et al (6,535,363) and Nakamoto et al (5,936,810) which are each cited to show MR sensors with small overlapping regions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (703) 308-2850. The examiner can normally be reached on M-TH 7:15am-4:45pm (and every other friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2652

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

A handwritten signature in black ink, appearing to read "B. E. Miller", written in a cursive style.

Brian E. Miller
Primary Examiner
Art Unit 2652

Bem
January 9, 2004